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10/567,599	02/09/2007	Yasuhiro Fujita	AOI-P4I	8619
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EXAMINER				
ANDRISH, SEAN D				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/567,599

**Applicant(s)**

FUJITA, YASUHIRO

**Examiner**

SEAN D. ANDRISH

**Art Unit**

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 11 and 13 - 16 is/are rejected.
- 7) ☒ Claim(s) 12 and 17 - 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

2. Claim 3 is objected to because of the following informalities: Examiner suggests amending the claim language to state that "said guide rails are provided with a length ~~so as to~~ that extend--s--". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 and 13 - 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, although applicant has directed examiner to specific passages in the specification which describe how the guide rails "extend across" said divided pile body portions and has amended the claim to clarify the positioning of the guide rails relative to the divided pile body sections, the addition of the phrase "with a length" does not clearly indicate whether the guide rails extend across the lengths of the divided portions of the pile body or fit within the length of each portion and are coupled together. Examiner suggests amending the claim to read "each of the guide rails extends across the lengths of the divided portions of the pile body", "the guide rails having a length of the leading pile and the coupling pile added", or something similar.

Regarding claims 13 – 15, applicant should amend the claim limitation “and wherein is further capable” as recited in claim 13, line 10 to specify which particular element of the claimed invention is further capable of performing the specified function. Examiner recommends deleting the word “wherein” so that it just reads “and is further capable”

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 - 5, 8, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita (5,975,808) in view of Gatien (3,487,646).

Regarding claims 1 - 5 and 16, Fujita discloses a pile assembly comprising: a core assembly (20); wedges (44) ending with tips thereon; openings (14), the openings are formed as incised apertures; and a pointed leading member (12a) (Figs. 1 - 5 and 7; column 3, line 21 - column 4, line 3). Fujita fails to disclose guide rails. Gatien teaches an inner pipe (10) having guide rails (slidable lands 20) and an outer pipe (22) having valleys (24) (Fig. 3; column 1, line 55 - column 2, line 2), the lands and valleys of the inner and outer pipes, respectively, permit the inner pipe to move in an axial direction relative to the outer pipe. The guide rail (land 20) of Gatien has an axial extent lengthwise in the interior hollow space of the pile body and helps guide the movement and position of the inner tube within the outer tube. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Fujita with the lands and valleys as taught by Gatien to

permit the inner pipe to move in an axial direction relative to the outer pipe. Examiner notes that Gatien was only used to teach guide rails between inner and outer pile sleeves. Examiner interprets the limitation(s) of claim 3 to require that each divided pile body portion has its own plurality of guide rails. The guide rails of each divided pile body portion are aligned with the plurality of guide rails on adjacent pile body portions to create a plurality of guide rails that extend across said divided pile body portions.

Regarding claim 8, Fujita further discloses wedge members (24) having different lengths (Fig. 3).

Regarding claim 9, Fujita further discloses the cross-sectional shape of the pile body is circular (Fig. 1).

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita in view of Gatien as applied to claim 1 above, and further in view of Nagashima (4,405,262). Fujita in view of Gatien discloses all of the limitations of the above claim(s) except for spiral blades. Nagashima teaches a pile assembly including spiral blades (7) and a pointed leading member (6) with excavating components (5) (Fig. 1) to propel the pile into the ground. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Fujita in view of Gatien with the spiral blades as taught by Nagashima to propel the pile into the ground.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita in view of Gatien as applied to claim 1 above, and further in view of O'Brien (1,982,687). Fujita in view of Gatien discloses all of the limitations of the above claim(s) except for hinges. O'Brien teaches wedge members (3) mounted on hinges (11, 12) (Figs. 1 and 4; page 1, lines 80 - 96) to affect a

lateral or radial penetration into the surrounding soil which increases the bearing strength and frictional resistive strength of the pile structure. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Fujita in view of Gatien with the hinges as taught by O'Brien to affect a lateral or radial penetration into the surrounding soil which increases the bearing strength and frictional resistive strength of the pile structure.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita in view of Gatien and Shiraishi (5,746,638). Fujita in view of Gatien discloses all of the limitations of the above claim(s) except for a magnetic cross gauge. Shiraishi teaches a magnetic cross gauge (block body 11) including a plurality of magnet holding portions (13) into which magnets are inserted (Fig. 3; column 4, lines 50 - 60) to connect multiple elements (blocks) together in a desired direction to create a variety of structures. The magnetic connection allows the magnetic cross gauge to be removed. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Fujita in view of Gatien with the magnetic cross gauge as taught by Shiraishi to connect multiple elements (blocks) together in a desired direction to create a variety of structures. The magnetic connection allows the magnetic cross gauge to be removed. Claim 11 has been interpreted as a combination of a magnet and a pile, as best understood by the examiner.

***Allowable Subject Matter***

10. Claims 13 - 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Examiner inadvertently used the wrong form paragraph in the previous office action which indicated that claims 13 - 15 were allowable. Since claim 13 was rejected under 35 U.S.C. 112(2) in section 3, paragraph 4 of the previous office action, the examiner should have indicated that claims 13 - 15 would be allowable if amended to overcome the rejection(s) under 35 U.S.C. 112(2).

11. Claims 12 and 17 - 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art fails to teach or suggest:

- a. first and second cross gauge members provided with a plurality of recesses on the periphery thereof, as required by claim 12
- b. the chronological order of the method steps of the manufacturing process, as required by claims 17 - 19

#### ***Response to Arguments***

12. Applicant's arguments filed 13 July 2009 have been fully considered but they are not persuasive.

Applicant argues that the "guide rails" in the present application are not equivalent to the keyed valleys and lands on the sleeved pile portion surfaces of Gatien, but rather the guide rails are provided for guiding the core assembly inside the interior to push the tips of the wedges out through the windows. Examiner responds that the lands and valleys as taught by Gatien allow for axial movement of the inner pipe (core assembly) relative to the outer pipe (pile) and provide for proper alignment of the inner pipe within the outer pipe (i.e. guide the movement of the core assembly inside the hollow interior space within the pile). The examiner notes that the guide

rails as taught by Gatien do not teach pushing the tips of the wedge members out through the openings in the walls of the pile portions, but the claims do not recite this limitation.

***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN D. ANDRISH whose telephone number is (571)270-3098. The examiner can normally be reached on Mon - Fri, 7:30am - 5:00pm, Alternate Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Kreck/  
Primary Examiner, Art Unit 3672

SDA  
9/23/2009